

PATENT COOPERATION TREATY

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Commissioner
 US Department of Commerce
 United States Patent and Trademark
 Office, PCT
 2011 South Clark Place Room
 CP2/5C24
 Arlington, VA 22202
 ETATS-UNIS D'AMERIQUE

in its capacity as elected Office

Date of mailing (day/month/year) 08 June 2001 (08.06.01)	Applicant's or agent's file reference DN1999-165-PCT
International application No. PCT/US99/20272	Priority date (day/month/year)
International filing date (day/month/year) 03 September 1999 (03.09.99)	
Applicant BONKO, Mark, Leonard	

1. The designated Office is hereby notified of its election made:



in the demand filed with the International Preliminary Examining Authority on:

07 March 2001 (07.03.01)



in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was

was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer Henrik Nyberg Telephone No.: (41-22) 338.83.38
--	--

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

King, David L.
THE GOODYEAR TIRE & RUBBER COMPANY
Department 823
1144 East Market Street
Akron, Ohio 44316-0001
ETATS-UNIS D'AMERIQUE

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL PRELIMINARY EXAMINATION REPORT (PCT Rule 71.1)

Date of mailing
(day/month/year) 06.11.2001

Applicant's or agent's file reference
DN1999-165-PCT

IMPORTANT NOTIFICATION

International application No.
PCT/US99/20272

International filing date (day/month/year)
03/09/1999

Priority date (day/month/year)
03/09/1999

Applicant
THE GOODYEAR TIRE & RUBBER COMPANY et al.

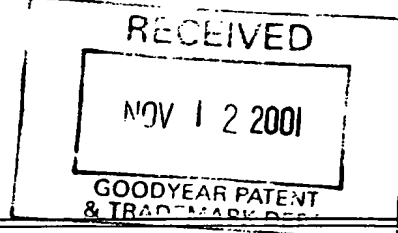
1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.



Name and mailing address of the IPEA/

 European Patent Office
D-80298 Munich
Tel. +49 89 2399 - 0 Tx: 523656 epmu d
Fax: +49 89 2399 - 4465

Authorized officer

BON, L

Tel. +49 89 2399-2961



PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference DN1999-165-PCT	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US99/20272	International filing date (day/month/year) 03/09/1999	Priority date (day/month/year) 03/09/1999
International Patent Classification (IPC) or national classification and IPC B60C11/01		
Applicant THE GOODYEAR TIRE & RUBBER COMPANY et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 3 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☒ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 07/03/2001	Date of completion of this report 06.11.2001
Name and mailing address of the international preliminary examining authority: <div style="display: flex; align-items: center;"> <div> European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465 </div> </div>	Authorized officer Peschel, W Telephone No. +49 89 2399 2702



INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/US99/20272

I. Basis of this report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, pages:

2-6	as originally filed		
1,1a	as received on	18/10/2001	with letter of 16/10/2001

Claims, No.:

1-4	as received on	18/10/2001	with letter of 16/10/2001
-----	----------------	------------	---------------------------

Drawings, sheets:

1/4-4/4	as originally filed
---------	---------------------

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/US99/20272

- ☐ the description, pages:
☒ the claims, Nos.: 5,6
☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims 1-4
	No:	Claims
Inventive step (IS)	Yes:	Claims 1-4
	No:	Claims
Industrial applicability (IA)	Yes:	Claims 1-4
	No:	Claims

2. Citations and explanations
see separate sheet

VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:
see separate sheet

V. Reason and statement

2. Citations and explanations

Reference is made to the following documents:

D1: GB-A-1 588 644 (PNEUMATIQUES CAOUTCHOUC MFG) 29 April 1981

D2: US-A-3 811 488 (DUNCAN E) 21 May 1974

2.1 Novelty of independent claim 1

Document **D1**, which is considered to represent the most relevant state of the art, discloses (cf. figs. 3 & 4; page 2, lines 52 - 63)

- " a pneumatic agricultural tire having a carcass having at least two bias plies, the first bias ply having cords oriented substantially equally but opposite relative to the cords of the second bias ply (*the features concerning the crossing cord angles are implicitly disclosed by document D2*), and a radially outer tread having a tread width **B** and a pair of radially inwardly extending sidewalls **5**; the outer surface of the sidewalls defining the tire-body section width **G**; the tire when normally inflated and mounted on a rim **10** has a tread width **B** greater than the maximum section width **G** of the tire-body."

The agricultural tire of independent claim 1 differs from this known tire in that

- (i) the tire is an implement wherein the tread has a plurality of circumferentially extending grooves and wherein
- (ii) each sidewall adjacent to the tread has an annular cavity.

The tire of independent claim 1 is therefore **novel** (Article 33(2) PCT).

The technical effect of the distinguishing features feature (i) is that contrary to the tire of D1, where only single tread lugs defined positions of maximum tread width greater than the maximum section width of the tire, the whole tread extends in its width over the tire-body maximum section width, and for the feature (ii) that the buttress portion of the tire does not extend in a substantially flat form from the

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/US99/20272

tread edge to the maximum section width portion of the tire but is concave below the tread portion; thus, contrary to the tire according to document D2 the whole tread portion surmounts the tire-body, thus, rolling down any field stubble and protecting the tire sidewall against stubble damage.

The **problem** to be solved by the present invention may therefore be regarded as to protect the sidewall of the tire in a different way.

The **solution** to this problem proposed in independent claim 1 of the present application is considered as involving an **inventive step** (Article 33(3) PCT) for the following reasons:

Document D2 discloses the use of a circumferentially extending protection rib located in the region of the buttress portion and protecting the sidewall against stubble damage. Due to this protection rib, an annular concavity is defined adjacent to the tread. Document D2, however, does not disclose a tread width larger than the tire-body width rolling down any potential sidewall damaging obstacles.

- 2.2 Claims 2 to 4 are dependent on claim 1 and as such also meet the requirements of the PCT with respect to novelty and inventive step.

VII. Certain defects in the international application

Contrary to Rule 5.1a) iii), the summary of the invention on page 1 of the description does not comply with claim 1.

WO 01/17801

**REPLACED BY
ART 34 AMDT**

1

FARM IMPLEMENT TIRE

Technical Field

5 This invention relates to a pneumatic agricultural tire. More particularly to a farm implement tire.

Background Invention

Farm implement tires are commonly found on equipment used in planting seeds or spraying fertilizer and such.

10 These pieces of equipment are often pulled behind a tractor.

In the case of seeding equipment, the numerous rows of a field are each fed seeds at fixed intervals at spaced locations aligned with a crop row. Each location has a complete mechanism to feed a seed at the fixed intervals as the tractor moves. These mechanisms, although fairly durable, are prone to jamming due to vibrational inputs from the tires.

15 Accordingly, most of the equipment uses pneumatic tires under inflation. The inflated tires act as a spring dampening system.

The use of solid or rigid tires has been avoided because the equipment would require a more complex suspension.

20 The main problem encountered in the use of pneumatic tires has been flats caused by stubble damage. These problems are increased when no-till farming is used to prevent soil erosion. The no-till fields can have a large number of stalks that are protruding out of the ground, the stalks often are cut at a biased angle creating sharp edges that cut tires.

The present invention described below provides a stubble damage resistant pneumatic tire having a unique cross-sectional profile wherein the sidewall is protected by the tread and a
25 shoulder buttress.

Summary of the Invention

A pneumatic agricultural tire (10) has a radially outer tread (12) having a pair of lateral edges (14,16) the distance between the lateral edges defined the tread width (T_w). Extending radially inwardly from the tread are a pair of sidewalls 17, the outer surfaces of the sidewall
30 17,18 defines the tires section width (S_w). The tire (10) when normally inflated and mounted on a rim (20) is characterized in that the tread width (T_w) is greater than or equal to the tires maximum section width (S_w).

Definitions

"Aspect Ratio" means the ratio of its section height to its section width.

35 "Axial" and "axially" means the lines or directions that are parallel to the axis of rotation of the tire.

CLAIMS

1. A pneumatic agricultural tire (10) having a radially outer tread (12) having a tread width (T_w) and a pair of radially inwardly extending sidewalls (17, 18), the outer surface of the sidewalls (17, 18) defining the tires section width (S_w), the tire (10) when normally inflated and mounted on
5 a rim (30) is characterized in that the tread width (T_w) is greater than or equal to the maximum section width (S_w) of the tire (10).
2. The pneumatic agricultural tire (10) of claim 1 wherein each sidewall (17,18) adjacent to the tread (12) has an annular concavity (19).
3. The pneumatic agriculture tire (10) of claim 1 wherein the annular concavity (19) is defined
10 by a single radius of curvature R_1 .
4. The pneumatic agricultural tire (10) of claim 1 wherein the tire (10) is further characterized by a carcass (20) having two or more bias plies (21, 22, 23, 24), the first ply (21) having cords (25) oriented substantially equally but opposite relative to cords (25) of the second bias ply (22).
5. The pneumatic agricultural tire (10) of claim 1 wherein interposed between the tread (12)
15 and sidewall (17,18) is a annular shoulder buttress 15 extending radially inward of the tread (12) and outward of the carcass plies (21, 22, 23, 24).
6. The pneumatic agricultural tire of claim 1 wherein the shoulder buttress (15) has a outer surface characterized by an annular groove (13).

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
15 March 2001 (15.03.2001)

PCT

(10) International Publication Number
WO 01/17801 A1

(51) International Patent Classification⁷: **B60C 11/01**,
3/04, 13/00, 13/02, 9/06

(21) International Application Number: **PCT/US99/20272**

(22) International Filing Date:
3 September 1999 (03.09.1999)

(25) Filing Language: English

(26) Publication Language: English

(71) Applicant (for all designated States except US): **THE
GOODYEAR TIRE & RUBBER COMPANY [US/US];**
1144 East Market Street, Akron, OH 44316-0001 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **BONKO, Mark,
Leonard [US/US];** 13236 Williamsburg Avenue, N.W.,
Uniontown, OH 44685 (US).

(74) Agent: **KING, David, L.;** The Goodyear Tire & Rubber
Company, Dept. 823, 1144 East Market Street, Akron, OH
44316-0001 (US).

(81) Designated States (*national*): AL, AM, AT, AU, AZ, BA,
BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES,
FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG,
MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE,
SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN,
YU, ZW.

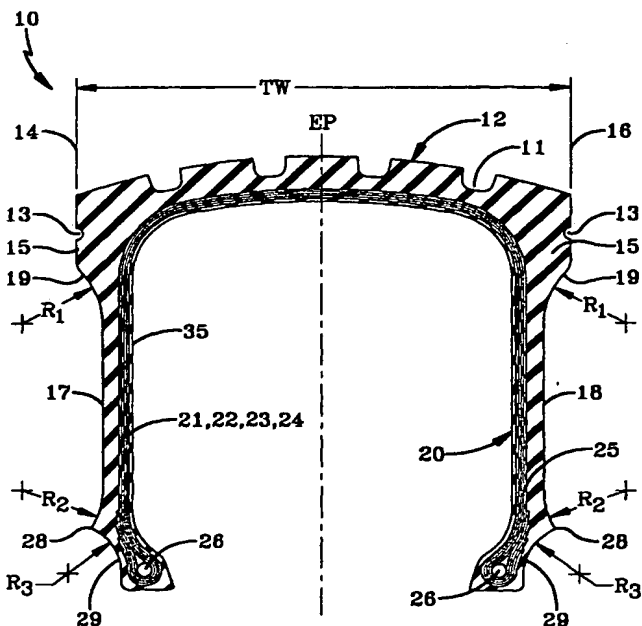
(84) Designated States (*regional*): ARIPO patent (GH, GM,
KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM,
AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT,
BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC,
NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA,
GN, GW, ML, MR, NE, SN, TD, TG).

Published:

— With international search report.

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **FARM IMPLEMENT TIRE**



(57) Abstract: The present invention relates to a farm implement tire (10) having a maximum section width (S_w) as measured between the sidewalls (17,18) that is narrower than the tread width (T_w) of the tread (12). The tread (12) includes an overhanging tread buttress (15) to reduce stubble damage.

WO 01/17801 A1

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

PCT

NOTIFICATION OF TRANSMITTAL OF
THE INTERNATIONAL SEARCH REPORT
OR THE DECLARATION

(PCT Rule 44.1)

To:

THE GOODYEAR TIRE & RUBBER COMPANY
Department 823
Attn. King, David L.
1144 East Market Street
Akron, Ohio 44316-0001
UNITED STATES OF AMERICA

Date of mailing
(day/month/year)

26/04/2000

Applicant's or agent's file reference

DN1999-165-PCT

FOR FURTHER ACTION

See paragraphs 1 and 4 below

International application No.

PCT/US 99/ 20272

International filing date
(day/month/year)

03/09/1999

Applicant

THE GOODYEAR TIRE & RUBBER COMPANY et al.

1. ☒ The applicant is hereby notified that the International Search Report has been established and is transmitted herewith.

Filing of amendments and statement under Article 19:

The applicant is entitled, if he so wishes, to amend the claims of the International Application (see Rule 46):

When? The time limit for filing such amendments is normally 2 months from the date of transmittal of the International Search Report; however, for more details, see the notes on the accompanying sheet.

Where? Directly to the International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland
Facsimile No.: (41-22) 740.14.35

For more detailed instructions, see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no International Search Report will be established and that the declaration under Article 17(2)(a) to that effect is transmitted herewith.

3. ☐ With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.

☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Further action(s):** The applicant is reminded of the following:

Shortly after 18 months from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for international publication.

Within 19 months from the priority date, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later).

Within 20 months from the priority date, the applicant must perform the prescribed acts for entry into the national phase before all designated Offices which have not been elected in the demand or in a later election within 19 months from the priority date or could not be elected because they are not bound by Chapter II.

5/11/00
OK
seen
DOK

Name and mailing address of the International Searching Authority



European Patent Office, P.B. 5818 Patentlaan 2
NL-2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 po nl,
Fax: (+31-70) 340-3016

Authorized officer

Sandrine Polenzani

RECEIVED

MAY - 4 2000

GOODYEAR PATENT
& TRADEMARK DEPT.

MAY 04 2000

NOTES TO FORM PCT/ISA/220

These Notes are intended to give the basic instructions concerning the filing of amendments under article 19. The Notes are based on the requirements of the Patent Cooperation Treaty, the Regulations and the Administrative Instructions under that Treaty. In case of discrepancy between these Notes and those requirements, the latter are applicable. For more detailed information, see also the PCT Applicant's Guide, a publication of WIPO.

In these Notes, "Article", "Rule", and "Section" refer to the provisions of the PCT, the PCT Regulations and the PCT Administrative Instructions respectively.

INSTRUCTIONS CONCERNING AMENDMENTS UNDER ARTICLE 19

The applicant has, after having received the international search report, one opportunity to amend the claims of the international application. It should however be emphasized that, since all parts of the international application (claims, description and drawings) may be amended during the international preliminary examination procedure, there is usually no need to file amendments of the claims under Article 19 except where, e.g. the applicant wants the latter to be published for the purposes of provisional protection or has another reason for amending the claims before international publication. Furthermore, it should be emphasized that provisional protection is available in some States only.

What parts of the international application may be amended?

Under Article 19, only the claims may be amended.

During the international phase, the claims may also be amended (or further amended) under Article 34 before the International Preliminary Examining Authority. The description and drawings may only be amended under Article 34 before the International Examining Authority.

Upon entry into the national phase, all parts of the international application may be amended under Article 28 or, where applicable, Article 41.

When?

Within 2 months from the date of transmittal of the international search report or 16 months from the priority date, whichever time limit expires later. It should be noted, however, that the amendments will be considered as having been received on time if they are received by the International Bureau after the expiration of the applicable time limit but before the completion of the technical preparations for international publication (Rule 46.1).

Where not to file the amendments?

The amendments may only be filed with the International Bureau and not with the receiving Office or the International Searching Authority (Rule 46.2).

Where a demand for international preliminary examination has been/is filed, see below.

How?

Either by cancelling one or more entire claims, by adding one or more new claims or by amending the text of one or more of the claims as filed.

A replacement sheet must be submitted for each sheet of the claims which, on account of an amendment or amendments, differs from the sheet originally filed.

All the claims appearing on a replacement sheet must be numbered in Arabic numerals. Where a claim is cancelled, no renumbering of the other claims is required. In all cases where claims are renumbered, they must be renumbered consecutively (Administrative Instructions, Section 205(b)).

The amendments must be made in the language in which the international application is to be published.

What documents must/may accompany the amendments?

Letter (Section 205(b)):

The amendments must be submitted with a letter.

The letter will not be published with the international application and the amended claims. It should not be confused with the "Statement under Article 19(1)" (see below, under "Statement under Article 19(1)").

The letter must be in English or French, at the choice of the applicant. However, if the language of the international application is English, the letter must be in English; if the language of the international application is French, the letter must be in French.

NOTES TO FORM PCT/ISA/220 (continued)

The letter must indicate the differences between the claims as filed and the claims as amended. It must, in particular, indicate, in connection with each claim appearing in the international application (it being understood that identical indications concerning several claims may be grouped), whether

- (i) the claim is unchanged;
- (ii) the claim is cancelled;
- (iii) the claim is new;
- (iv) the claim replaces one or more claims as filed;
- (v) the claim is the result of the division of a claim as filed.

The following examples illustrate the manner in which amendments must be explained in the accompanying letter:

1. [Where originally there were 48 claims and after amendment of some claims there are 51]:
"Claims 1 to 29, 31, 32, 34, 35, 37 to 48 replaced by amended claims bearing the same numbers; claims 30, 33 and 36 unchanged; new claims 49 to 51 added."
2. [Where originally there were 15 claims and after amendment of all claims there are 11]:
"Claims 1 to 15 replaced by amended claims 1 to 11."
3. [Where originally there were 14 claims and the amendments consist in cancelling some claims and in adding new claims]:
"Claims 1 to 6 and 14 unchanged; claims 7 to 13 cancelled; new claims 15, 16 and 17 added." or
"Claims 7 to 13 cancelled; new claims 15, 16 and 17 added; all other claims unchanged."
4. [Where various kinds of amendments are made]:
"Claims 1-10 unchanged; claims 11 to 13, 18 and 19 cancelled; claims 14, 15 and 16 replaced by amended claim 14; claim 17 subdivided into amended claims 15, 16 and 17; new claims 20 and 21 added."

"Statement under article 19(1)" (Rule 46.4)

The amendments may be accompanied by a statement explaining the amendments and indicating any impact that such amendments might have on the description and the drawings (which cannot be amended under Article 19(1)).

The statement will be published with the international application and the amended claims.

It must be in the language in which the international application is to be published.

It must be brief, not exceeding 500 words if in English or if translated into English.

It should not be confused with and does not replace the letter indicating the differences between the claims as filed and as amended. It must be filed on a separate sheet and must be identified as such by a heading, preferably by using the words "Statement under Article 19(1)."

It may not contain any disparaging comments on the international search report or the relevance of citations contained in that report. Reference to citations, relevant to a given claim, contained in the international search report may be made only in connection with an amendment of that claim.

Consequence if a demand for international preliminary examination has already been filed

If, at the time of filing any amendments under Article 19, a demand for international preliminary examination has already been submitted, the applicant must preferably, at the same time of filing the amendments with the International Bureau, also file a copy of such amendments with the International Preliminary Examining Authority (see Rule 62.2(a), first sentence).

Consequence with regard to translation of the international application for entry into the national phase

The applicant's attention is drawn to the fact that, where upon entry into the national phase, a translation of the claims as amended under Article 19 may have to be furnished to the designated/elected Offices, instead of, or in addition to, the translation of the claims as filed.

For further details on the requirements of each designated/elected Office, see Volume II of the PCT Applicant's Guide.

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference DN1999-165-PCT	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/US 99/ 20272	International filing date (day/month/year) 03/09/1999	(Earliest) Priority Date (day/month/year)
Applicant THE GOODYEAR TIRE & RUBBER COMPANY et al.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.
☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ Certain claims were found unsearchable (See Box I).

3. ☐ Unity of invention is lacking (see Box II).

4. With regard to the title,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawing to be published with the abstract is Figure No.

☒ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

3
☐ Non of the figures.

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/US 99/20272

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B60C11/01 B60C3/04 B60C13/00 B60C13/02 B60C9/06

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B60C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3 811 488 A (DUNCAN E) 21 May 1974 (1974-05-21) column 1, line 5 - line 50; claims 1,4,8,9,11,13,14 column 4, line 28 - line 42 column 4, line 47 - line 51 column 3, line 41 - line 67	1-3,5,6
X	GB 1 588 644 A (PNEUMATIQUES CAOUTCHOUC MFG) 29 April 1981 (1981-04-29) page 1, right-hand column, line 67 - line 91 page 2, left-hand column, line 52 -right-hand column, line 89; figures 3,4 page 2, left-hand column, line 48 - line 51 --- -/--	1,4



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

17 April 2000

Date of mailing of the international search report

26/04/2000

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Baradat, J-L

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/US 99/20272

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3 825 052 A (MATSUYAMA T ET AL) 23 July 1974 (1974-07-23) column 4, line 40 - line 52 column 3, line 20 - line 25; figure 2	1,2,4,5
X	GB 1 433 410 A (CATERPILLAR TRACTOR CO) 28 April 1976 (1976-04-28) page 1, left-hand column, line 13 - line 19; claims; figures 3,4 page 1, right-hand column, line 65 - line 80	1
A	GB 785 097 A (PIRELLI S.P.A.) 23 October 1957 (1957-10-23) page 1, right-hand column, line 49 - line 80; claims page 2, left-hand column, line 48 -right-hand column, line 99; figures	1,5,6

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 99/20272

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 3811488 A	21-05-1974	AU 5862773 A CA 979341 A DE 2340761 C DE 2340761 A GB 1430466 A JP 1035935 C JP 49058503 A JP 55026004 B ZA 7305114 A	30-01-1975 09-12-1975 10-08-1989 07-03-1974 31-03-1976 26-02-1981 06-06-1974 10-07-1980 31-07-1974
GB 1588644 A	29-04-1981	FR 2367627 A AT 354872 B AT 726377 A BE 859646 A DE 2744848 A IT 1091436 B LU 78281 A NL 7711029 A	12-05-1978 11-02-1979 15-06-1979 12-04-1978 13-04-1978 06-07-1985 09-06-1978 14-04-1978
US 3825052 A	23-07-1974	JP 1041117 C JP 49033302 A JP 52011801 B AU 458390 B AU 5566673 A BE 799828 A CA 985141 A DE 2337613 A GB 1427178 A	23-04-1981 27-03-1974 02-04-1977 27-02-1975 14-11-1974 17-09-1973 09-03-1976 21-02-1974 10-03-1976
GB 1433410 A	28-04-1976	JP 50094645 A	28-07-1975
GB 785097 A		IT 525772 A	